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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------|------------------|
| 09/807,060 | 07/16/2001 | Sang-Hoon Seo | 51876P237 | 2396 |
| 7590 09/09/2005 Blakely Sokoloff Taylor & Zafman 12400 Wilshire Boulevard 7th Floor Los Angeles, CA 90025-1026 | | | EXAMINER HO, DUC CHI | |
| | | | ART UNIT 2665 | PAPER NUMBER |
| DATE MAILED: 09/09/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/807,060

Applicant(s)

SEO ET AL.

Examiner

Duc C. Ho

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-20 and 23-30 is/are allowed.
- 6) ☒ Claim(s) 21 and 31 is/are rejected.
- 7) ☒ Claim(s) 22 and 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Allowable Subject Matter

1. The indicated allowability of claims 21-22, and 31-32 are is withdrawn in view of the newly discovered reference(s) to Cheng et al (US 6771,963). Rejections based on the newly cited reference(s) follow.

Specification

2. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art (APA, pages 1-2 of the instant application) in view of Tiedemann, Jr et al.(US 6,873,647), hereinafter referred to as Tiedemann.

Regarding claim 21, the APA of the instant application discloses a handoff in a CDMA system to a hierarchical cell structure with the same service band (with different frequency to cells), i.e., a hierarchical cell structure of a macrocell (upper cell) and a microcell (lower cell) in an IMT-2000.

The APA, however, does not expressly disclose (1) cell structure information of neighboring base stations, and (2) searching for PN code of a cell where a mobile station is moved to and performing handoff.

One skill in the art would recognize the advantage of having a list of neighboring base stations and employing PN code to perform handoff in CDMA2000.

Tiedemann discloses method and system for reducing synchronization time in a CDMA wireless communication system. According to Tiedemann, a combined CDMA "IMT-2000" and cdma2000 has been proposed such that in handoff, a remote unit which is communicating with an active base station is more likely to handoff to one of the neighboring base stations than to other base stations in the system. Since the neighbor list identification message identifies a neighboring base station according the PN sequence offset at which it transmits the pilot signal, and a one-to-one correspondence between a base station and a PN sequence offset, a remote unit uses the neighbor list to limit the space over which it search for handoff candidates, see col. 2-line 49 to col. 3-line 50. In other words, with (1) information of neighboring base stations, a remote unit (2) searches for a PN code corresponding to a candidate base station for handoff.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine APA with Tiedemann.

The suggestion/motivation for doing so would have been to provide handoff for a third generation CDMA wireless communication system in a hierarchical cell structure.

Therefore, it would have been obvious to combine APA with Tiedemann to obtain the invention as specified in claim 21.

Regarding claim 31, this claim has similar limitations as claim 21. Therefore, it is rejected under APA-Tiedemann for the same reasons set forth in the rejection of claim 21.

Allowable Subject Matter

6. Claims 1-20, and 23-30 are allowed
7. Claims 22, and 32 are objected to as being independent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner



Duc Ho

9-02-05